

TURN OUT THOSE LIGHTS!

Here Comes the Energy Patrol

A STEP BY STEP GUIDE



For the cost of four t-shirts, jackets or hats, your school could save as much as \$1,000 a month.

How? By beginning a student Energy Patrol.

Energy patrols are one of the most popular and effective energy action programs to be developed in California.

Students on energy patrols monitor classrooms to ensure that lights are turned off when rooms are vacant, which reduces school electrical costs

considerably.

Lighting is a good target for any school energy program because in most schools, lighting is the largest energy-user, consuming from 38 percent to 54 percent of total classroom energy.



The **Energy Patrol** originated at DeVargas School in the Cupertino Unified School District near San Jose, California. The patrol gives students an opportunity to practice leadership skills by taking responsibility for their school. By getting kids actively involved, the program makes the school a more exciting learning environment, and at the same time can reduce the school's energy costs by roughly 1/3 or \$1,000 a month in DeVargas's case. That money can be used for other school programs.

The Energy Patrol was so successful that it was adapted at every elementary school in Cupertino and their efforts were recognized

nationally with a U.S. Department of Energy Award for Energy Innovation. The Energy Patrol has been adapted by many schools across California and the nation for kids as young as second grade and as old as junior high. It probably works best for upper elementary. The name may change to Waterford Watt Watchers or something that reflects the school mascot, but the result is the same.

One thing that is important not to omit is special recognition for the students. That's where t-shirts, jackets or hats come in. Special jackets with the school name and energy patrol symbol would spark student interest and give them the recognition they deserved. In Cupertino, the district paid for the jackets or you can ask your local utility, school PTA, booster club or business community to contribute. Tracking your success is also important to see if your patrol is saving 20 to 30 percent of the school's energy bills.

The following is a packet of materials, including check sheets and procedures, developed by DeVargas School which describe the details of how they began, and still operate their energy patrol program. If your district does not currently track energy costs, you may want to contact your local utility for more information on how to track the savings from the Energy Patrol.

THE DEVARGAS SCHOOL CASE

A DeVargas teacher tells how...



The DeVargas School Energy Patrol has saved our school district thousands of dollars! Sound too good to be true? After a \$1,000 savings the first month, we, too, thought that something must be wrong. But each month as the utility bills came in the results continued to be fantastic.

The DeVargas Energy Patrol is made up of 20 students in the fourth, fifth and sixth grades. Teams of these students check each classroom, the office areas, portables, and store rooms at

recess, lunch, and after school.

When lights are found on, they are quickly turned off. Periodically, thermostats are also checked.

Patrol requires little teacher involvement

When the principal at DeVargas School got the idea for the Energy Patrol, he realized there needed to be something special about the group to attract and motivate fourth, fifth and sixth graders. He went to the Cupertino School District's associate superintendent for business and asked for \$100 for Energy Patrol start-up expenses. In exchange for the money, he promised that the school would save \$100 on their utility bills. With the funds, he purchased four jackets that say "DeVargas School Energy Patrol" on the front and have the patrol's symbol, the lightning bolt, on the back. He also got photo ID tags for each energy patrol member. Members wear a jacket and their name tag when they are on duty.



Teachers were asked to recommend responsible students for the program who could be trusted with keys to the buildings and would need little supervision. There is no other teacher-involvement other than enthusiastic support of the program. Administrative involvement after initial start-up is minimal.

Simple daily routine saves dollars

Four students are on duty each day. One team of two students checks half the rooms and a second team checks the other half. It now takes them about five minutes. The students come to the office where their jackets, name tags and clipboards are kept in one corner of the store room. They get into uniform and pick up the keys, which are kept near the secretary's desk in a secret hiding place known only to Energy Patrol members. They do their rounds, keep records of whose lights are on or off, put up reminder notices on light switches, bring back their materials and go to recess. It's easy and quick!

Students create light switch reminders

Activities for the Energy Patrol have gone beyond the original plan. Anxious to do more to save energy, the students asked if they could explore other energy problems and expand their duties. They created bulletin boards on conservation, put "Save Energy" signs by every light switch, visited their local utility to hear suggestions for conservation, performed an air flow study and sent the results to the District Office.

The results of that study led to many new thermostats and some improvements to the heating system. The students made a School Board presentation and even appeared on a local television news program.

One of the activities, beyond turning off lights, that most directly saved energy was creating a reminder that says, "Oops, you forgot to turn off your lights." That 3" x 3" piece of paper with the picture of an unhappy lion (the lion is the DeVargas School mascot) is taped over the light switches that are left on in unused rooms. Eight will fit on one page, which were then run off on a copier and cut apart.



These reminders have increased the awareness of students and staff. Nobody wants an unhappy lion to remind them that they are not helping in conservation efforts. Conservation reminders (used to remind people of the right thermostat settings) are made the same way, but the students color them carefully and then laminate them.

Kids can make a difference!



Awards are presented at assemblies to classes that have done a good job of turning off their own lights. The basic activity, though, of getting lights turned off at recess and lunch and after school, and encouraging other students and teachers to do the same, is still the job of the Energy Patrol and all that's really necessary for success.

Did DeVargas School save \$100 the first month? That, and more!

They averaged a savings of more than **\$1,000 a month for every month the patrol worked** -- or a total savings for one school year of \$8,000.

That was one-third of the school's energy bill!
Kids can make a difference!

**Note:**

The model provided by DeVargas School can be adapted to meet your school's special requirements. In some schools, light switch reminders have been designed to fit on door handles.

Some schools hold competitions to design reminders so all students can be involved. In some schools, staff members have not been comfortable giving even the most responsible students access to a master key, so strategies other than reminders taped to light switches have been used to notify staff that lights were left on.

The program may also change over time. It's common after several months of operating an energy patrol to find that lights are almost never left on. If this happens, patrols often change their schedules so surprise spot checks are made once or twice a week or month. Patrols can also take on new tasks such as checking to see that shades are opened and closed at the proper times or checking thermostat settings to see that they are appropriately set.

Energy Patrol Start-up Procedures

1. Obtain support from your School District Office.
Responsibility: PRINCIPAL
2. Hold staff meeting to present Energy Patrol idea.
Responsibility: PRINCIPAL
 - Rough overview of Patrol activities.
 1. Entering classroom unsupervised.
 2. Record keeping.
 3. Reporting to students, etc.
 - Generate staff support and enthusiasm.
3. Develop list of possible Energy Patrol members.
Responsibility: TEACHERS
4. Evaluate list and make final choices.
Responsibility: PRINCIPAL/ADVISER
5. Meet with students and explain general procedures for Energy Patrol.
Responsibility: PRINCIPAL/ADVISER
6. Develop procedures and materials.
Responsibility: STUDENTS/ADVISER
 - Rules, regulations and agreements.
 - Check sheets for each room.
 - Location of supplies.
 - Schedule of inspections.
 - Draw and ditto light switch reminders.
7. Have students sign agreement to serve as Energy Patrol Members. Keep agreements on file.
Responsibility: STUDENTS/ADVISERS
8. Walk through with all members -- noting locations of light switches and thermostats, etc.
Responsibility: STUDENTS/ADVISERS

9. Publicize starting date and purpose.

Responsibility: PRINCIPAL

- Students.
- Community.
- Staff.

10. Go and save energy!.

Responsibility: ENERGY PATROL STUDENTS

Energy Patrol Agreement

NAME _____

GRADE _____

ROOM NUMBER _____

I agree to assume the responsibilities of the (school name) ENERGY PATROL.

I will follow all Energy Patrol procedures and will do the best job possible.

Signed

Date

Energy Patrol Procedures

1. Get jacket, clipboard, reminder notices and record sheet from the file room. Check for notices of Energy Patrol meetings.
2. Pick up key(s).
3. Inspect your area and record information neatly on the checklist. Re-lock rooms that you enter.
4. Return supplies to their proper area. If you run out of reminder notices, leave a note so more can be run off on the ditto machine.

REMINDER

- **Use of the key is a big responsibility. It can be used by Energy Patrol member only.**
- **Only Energy Patrol members may enter locked areas. Do not bring your friends along or allow desperate students who need snacks, jackets, pencils, books, etc. to enter classrooms!**
- **Members must always wear their jackets and IDs when on duty.**
- **Work quickly -- also, quietly and politely in rooms where people are working.**

SAMPLE Energy Patrol Checklist

Building: _____ Month: _____

Note: This chart can be viewed only with browsers that support HTML 3.0 tables.

Location/Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	days etc.
Room 1	/	/	/	/	/	NS	NS	/	/	/	/	/							
Room 2	/	/	0	0	X	NS	NS	/	/	/	/	/							
Room 3	X	X	X	X	X	NS	NS	X	X	X	X	X							
Room 4	0	0	X	0	0	NS	NS	0	X	0	0	X							

Check Which Time:

[X] RECESS
 [] LUNCH
 [] AFTER SCHOOL

INSPECTORS:

Monday _____
 Tuesday _____
 Wednesday _____
 Thursday _____
 Friday _____

KEY: / Area in Use
 0 Energy in Use/ NO people
 X NO Energy in Use
 NS No School Day